



Avinashilingam Institute for Home Science and Higher Education for Women
(Deemed to be University under Category 'A' by MHRD, Estd. u/s 3 of UGC Act 1956)
Re-accredited with 'A+' Grade by NAAC. Recognised by UGC Under Section 12B
Coimbatore - 641 043, Tamil Nadu, India

Bachelor's Degree Examination – June 2021
VI Semester

Class : III UG
Major : Computer Applications

Time : 3 Hours
Max. Marks: 100

18BCAC28 Iot Design and Applications

Part A

10 x 1 = 10

Choose the Correct Answer

1. Which one is not an element of IOT? CO1 K2
a. People b. Process
c. Security d. Things
2. What Does Design Provide? CO1 K2
a. Technology b. Ecosystem
c. Digital revolution d. Technology and ecosystem
3. Informed_____ will Provide Intelligent design, operation as well as safety CO2 K1
a. Product b. People
c. Process d. Infrastructure
4. Which of the following Languages is preferred for IOT analytics? CO2 K2
a. Python b. S
c. R d. All the above
5. _____ are the devices that are able to emit, accept and process data over the Network CO3 K1
a. Edge IT b. Gateways
c. Sensors d. Data Acquisition
6. The Raspberry pi is defined as the _____ CO3 K1
a. Micro Computer b. Mini Computer
c. Mega Computer d. Nano Computer
7. _____ is a capable little device that enables people of all ages to explore computing and to learn how to program in languages like Scratch and Python. CO4 K2
a. Raspberry pi b. Python programming
c. Linux d. Web programming
8. Which Operating System Raspberry pi has? CO4 K2
a. Linux b. Open BSP
c. Net BSP d. All the above
9. Intel Galileo has the main feature of CO5 K1
a. Support PCI Express b. Intel Quart
c. Support for open CV d. Onboard real time clock
10. Electric motor protection has _____ sensor CO5 K1
a. Pressure sensor b. Touch sensor
c. Temperature sensor d. Humidity Sensor

Part B

5 x 6 = 30

Answer ALL questions

Each answer should not exceed 400 words or two pages

- 11.a. Examine IOT Characteristics (or) CO1 K2
11.b. What are all the Levels and Deployment templates of IOT? CO1 K1
- 12.a. Describe the design methodology of IOT (or) CO2 K2
12.b. Illustrate how does IOT System Works CO2 K3
- 13.a. i) What is an IOT Device? (2 marks)
ii. Discuss about IOT Physical Devices (4 marks) (or) CO3 K1
13.b. What are the interfaces of Raspberry Pi and how is Raspberry Pi used in IOT? CO3 K3
- 14.a. Examine the implementation of IOT in Real Time Application (or) CO4 K3
14.b. Why is python language used for IOT Devices? Justify your answer. CO4 K2
- 15.a. Illustrate how Galileo Intel board and Window OS used in IOT (or) CO5 K3
15.b. Discuss the implementation of Temperature Controller CO5 K2

Part C

5 x 12 = 60

Answer ALL questions

Each answer should not exceed 800 words or four pages

- 16.a. Describe the Fundamentals of IOT Architecture and Challenges (or) CO1 K3
16.b. List and explain about IOT Enabling Technologies CO1 K2
- 17.a. Write a case Study on IOT System for weather monitoring (or) CO2 K5
17.b. Illustrate the Logical Design using Python CO2 K2
- 18.a. Enumerate the Basic Building Block of an IOT Devices (or) CO3 K2
18.b. Give a Layout of the Raspberry pi board and with neat sketch explain the components of the Board. CO3 K3
- 19.a. Illustrate the programming and connecting devices using Python and C Language (or) CO4 K2
19.b. Examine how Raspberry Pi works on the Raspberry operating system CO 4K2
- 20.a. Explicate classification of IoT Boards details (or) CO5 K2
20. b. Explain the needs and working principle of the Temperature Controller with suitable example. CO5 K2
